



Legislative Testimony of the Connecticut Green Bank
Energy and Technology Committee
March 8, 2022

Regarding House Bill 5325
AN ACT REQUIRING THE COMMISSIONER OF ENERGY AND ENVIRONMENTAL PROTECTION TO MAKE RECOMMENDATIONS REGARDING HYDROPOWER

As the nation's first green bank, the Connecticut Green Bank ("Green Bank") leverages the limited public resources it receives to attract multiples of private investment to scale up clean energy deployment. Since its inception, the Green Bank has mobilized \$2.14 billion of investment into Connecticut's clean energy economy at a 7.4 to 1 leverage ratio of private to public funds, supported the creation of 25,612 direct, indirect and induced jobs, reduced the energy burden on over 63,000 families and businesses, deployed over 494 MW of clean renewable energy, helped avoid 9.9 million tons of CO2 emissions over the life of the projects, and generated \$107.4 million in individual income, corporate, and sales tax revenues to the State of Connecticut.

The Green Bank **supports House Bill 5325.**

Based on the Green Bank's reading of House Bill 5325, the bill would:

Require the Department of Energy and Environmental Protection (DEEP) to make policy recommendations and perform modeling with respect to hydropower facilities in the state's next Comprehensive Energy Strategy (CES).

The Green Bank is experienced investing in hydropower facilities in the state, including:

- **Hanover Pond Hydro (Meriden)** – Green Bank's first completed hydroelectric project is a 193 kW facility at the Hanover Pond Dam on the Quinnipiac River in the City of Meriden using Archimedes Screw Generation (ASG) technology. The Meriden project is the first ASG in the United States and has since led to the development of several additional projects in New England and Pennsylvania. The project commenced production in 2017 and benefits from the State's zero emission renewable energy credit (ZREC) program and the virtual net metering (VNM) program which permits the facility to supply electricity virtually to the city of Meriden.
- **Historic Cargill Falls Mill (Putnam)** – The project consists of an approximately 900 kW hydroelectric development ("Hydro Project") and a portion of the various energy conservations measures installed at the property along with a much larger redevelopment of an existing mill property into mixed-use residential (83 units) and commercial space. Forty-one percent (41%) of these units (i.e., 34) have been

designated for affordable housing with correspondingly lower, affordable lease rates. The \$32 million mixed use real estate and Hydro Project includes \$7.1M from the Green Bank as a Commercial PACE secured loan along with the remainder of the funds coming from the CT Department of Housing, Urban Act funds, state and historic tax credit equity investors, and developer equity. The residential and commercial units are completed and occupied (100% residential occupancy). The hydroelectric facility is substantially completed and is expected to achieve full operation in the summer of 2022 and benefits from the State's ZREC program; and

- **Upper Collinsville Dam (Canton)** – This project consists of a \$1.2 million subordinate loan ("Loan") and \$500,000 limited guaranty from the Green Bank to finance through construction and operation a 1 MW hydroelectric facility located at the Upper Collinsville Dam on the Farmington River (the "Project"). The Loan was leveraged by a \$4.7 million senior loan from The Provident Bank, a \$300,000 in-kind contribution from equipment supplier and turnkey provider WWS Wasserkraft GmbH, and \$675,000 in equity from Canton Hydro LLC, the Project's developers. This Project commenced production in December 2021 and benefits from the State's ZREC program and the VNM program which permits the facility to supply electricity virtually to DEEP.

Connecticut has hundreds - if not thousands - of dams at the end of their useful life and Federal Energy Regulatory Commission (FERC) licensing. The Green Bank sees potential value for the renovation and repowering of these small hydroelectric facilities to produce Class I zero emission clean energy in environmentally appropriate contexts, while at the same time increasing the resiliency of our state against the impacts of climate change (e.g., flooding). The projects the Green Bank has completed demonstrate private capital has an interest in financing these facilities, particularly those with assured energy offtake arrangements. The Green Bank believes that consideration should be afforded these facilities in the CES.

Please find attached to this testimony the Green Bank's Decennial Societal Impact Report.

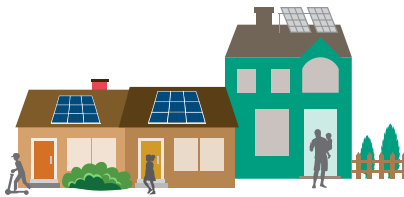
Questions on this document may be submitted to Matt Macunas, Legislative Liaison and Associate Director of Regulatory Policy, reachable at matt.macunas@ctgreenbank.com or at (860) 257-2889.



Connecticut Green Bank is the nation's first green bank. Our mission is to confront climate change and provide all of society with a healthier and more prosperous future by increasing and accelerating the flow of private capital into markets that energize the green economy. Established in 2011 as a quasi-public agency, the Green Bank uses limited public dollars to attract private capital investment and offers green solutions that help people, businesses and all of Connecticut thrive.

our solutions

The Green Bank is helping Connecticut flourish by offering green solutions for homes and buildings, and by creating innovative ways to invest in the green economy.



homes



Empowering all Connecticut families and households with accessible and affordable green solutions that bring them comfort and security. Find incentives for battery storage or use the Green Bank's flexible financing to reduce costs with health and safety improvements and the newest energy efficient technologies.



buildings



Creating stronger, more resilient communities with green solutions for buildings of all types, from businesses and nonprofits to multifamily housing and local government. Leverage Green Bank financing to save money and realize the benefits of more modern, sustainable buildings.



investments



Securing a healthier planet with smart ways for individuals and businesses to invest in green solutions – and our future – while also earning a return. Energize the green economy by investing in it today. Buy a Green Liberty Bond, invest through a crowdfunding offering, or join the movement by finding other ways to invest.

Decennial Societal Impact Report

FY12
FY21

Since the Connecticut Green Bank's inception through the bipartisan legislation in July 2011, we have mobilized more than **\$2.14 billion of investment** into the State's green economy. To do this, we used **\$288.4 million** in Green Bank dollars to attract \$1.85 billion in private investment, a leverage ratio of **\$7.40 for every \$1**. The impact of our deployment of renewable energy and energy efficiency to families, businesses, and our communities is shown in terms of economic development, environmental protection, equity, and energy (data from FY 2012 through FY 2021).

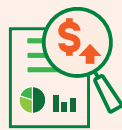
ECONOMIC DEVELOPMENT

JOBS The Green Bank has supported the creation of more than **25,612** direct, indirect, and induced job-years.



TAX REVENUES

The Green Bank's activities have helped generate an estimated **\$107.4 million** in state tax revenues.



\$52.8 million
individual income tax
\$27.5 million
corporate taxes
\$27.1 million
sales taxes

ENERGY

ENERGY BURDEN

The Green Bank has reduced the energy costs on families, businesses, and our communities.



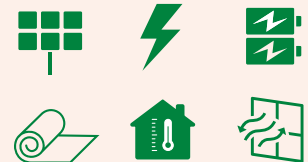
57,000+
families



6,000+
businesses

DEPLOYMENT

The Green Bank has accelerated the growth of renewable energy to more than **494 MW** and lifetime savings of over **64.1 million MMBTUs** through energy efficiency projects.



ENVIRONMENTAL PROTECTION

POLLUTION The Green Bank has helped reduce air emissions that cause climate change and worsen public health, including **9.3 million pounds** of SOx and **10.7 million pounds** of NOx.



9.9 MILLION
tons of CO₂ :
EQUALS

163 MILLION
tree seedlings
grown for 10 years

OR

2.1 MILLION
passenger vehicles
driven for one year

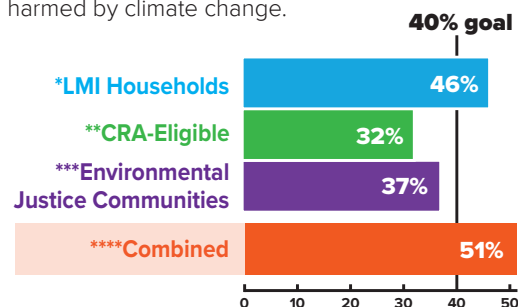
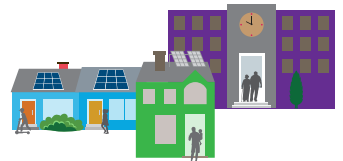
PUBLIC HEALTH The Green Bank has improved the lives of families, helping them avoid sick days, hospital visits, and even death.

\$298.1 – \$674.1 million of lifetime public health value created



EQUITY

INVESTING in vulnerable communities, The Green Bank has set **goals** to reach **40% investment** in communities that may be disproportionately harmed by climate change.



*LMI Households – households at or below 100% Area Median Income.

**Community Reinvestment Act (CRA) Eligible – households at or below 80% of Area Median Income and all projects in programs designed to assist LMI customers.

***Environmental Justice Community means a municipality that has been designated as distressed by Connecticut Department of Economic and Community Development (DECD) or a census block group for which 30% or more of the population have an income below 200% of the federal poverty level.

****Combined Vulnerable Communities include LMI, CRA and EJC.



Learn more by visiting ctgreenbank.com/strategy-impact/impact

Winner of the 2017 Harvard Kennedy School Ash Center Award for Innovation in American Government, the Connecticut Green Bank is the nation's first green bank.

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Sources: Connecticut Green Bank Annual Comprehensive Financial Reports.